



# UNITED STATES MARINE CORPS

MARINE CORPS AIR STATION  
PSC BOX 8003  
CHERRY POINT, NORTH CAROLINA 28533-0003

AirStaO 6250.4A  
NAVHOSP

22 JAN 2001

## AIR STATION ORDER 6250.4A

From: Commanding General, Marine Corps Air Station, Cherry Point  
To: Distribution List

Subj: EMERGENCY VECTOR CONTROL

Ref: (a) NAVENVIRHLTHCEN, NORVA ltr 6250 Ser 37/3274 of  
25 Jun 93 (NOTAL)  
(b) OPNAVINST 6250.4A (NOTAL)  
(c) DoD Directive 4150.7 (NOTAL)  
(d) BUMEDINST 6250.12A (NOTAL)  
(e) NAVMED P-5010-8 (NOTAL)  
(f) NAVFACINST 6250.3H (NOTAL)  
(g) OPNAVINST 5090.1A (NOTAL)

Encl: (1) Mosquito Activity Synopsis  
(2) Emergency Vector Control Supplement

1. Situation. To establish an Emergency Vector Control Plan for Marine Corps Air Station (MCAS), Cherry Point, North Carolina in compliance with the references.

2. Cancellation. AirStaO 6250.4.

3. Mission. To effectively eradicate exceptionally large pest populations associated with widespread flooding and disruption of sanitation from severe weather conditions or any other instance when extensive spraying is required to stop a vector-borne outbreak.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. I want to implement an effective emergency vector control program and integrate it into the Air Station's pest control program.

(2) Concept of Operations

(a) Because of the necessity for minimizing disease transmission by vectors, immediate control is required. This would be best accomplished with efficient, environmentally safe insecticides.

(b) Aerial and ground applications would be required in order to cover all of Cherry Point, outlying fields, and housing areas.

b. Tasks

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(1) Commanding Officer, Naval Hospital

(a) Upon the advice of the Environmental Health Officer or leading Preventive Medicine Technician, inform the Commanding General, 'MCAS, Cherry Point that there is sufficient cause to enact emergency vector control procedures.

(b) Ensure all Preventive Medicine Technicians (PMTs) maintain current DoD pesticide applicator certification in category 8, Public Health, as part of their Navy enlisted classification.

(2) Environmental Health Officer or Leading Preventive Medicine Technician, Naval Hospital

(a) Maintain appropriate epidemiologic surveillance for vector-borne diseases.

(b) Coordinate overall vector abatement activities. Collaborate with PAO to alert and notify Air Station residents of disease transmission precautions and scheduled aerial and ground spray application missions. Make available information releases to PAO for dissemination to Air Station officials and residents.

(c) Notify Director of Facilities of the emergency situation and that aerial spraying may be warranted.

(d) Notify the Naval Environmental Health Center (NEHC), Norfolk, of the situation and request their assistance of the Disease Vector Ecology and Control Center (DVECC), Naval Air Station, Jacksonville, Florida in providing aerial spraying equipment.

(e) Provide personnel, as necessary, to conduct an effective emergency Vector Abatement Program.

(f) Notify the Medical Entomologist, 2d FSSG, Camp Lejeune, of the emergency situation.

(g) Monitor the effectiveness of the pest control operation by using the enclosures.

(3) Director of Facilities

(a) Provide to the Preventive Medicine Department such personnel, equipment, and supplies from the pest control section as may be required.

(b) Request a contract for a qualified civilian aerial spray applicator, for use on short notice, in the event that DVECC is unable to assist. In this situation, careful consideration should be given to the following:

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- 1 Cost of service.
- 2 Services provided.
- 3 Availability on short notice.
- 4 Insurance coverage.
- 5 Experience and references (if practical) in this type of work.
- 6 Detailed plans on response.

(c) Prepare an environmental impact statement for use in the event the emergency vector control plan is implemented.

(4) Public Affairs Officer (PAO). Establish procedures to be followed if contacted by the local media. Coordinate with Environmental Health Officer all information releases concerning aerial spray missions and medical alert notices. Ensure that Air Station residents receive a minimum of 48 hours notice that spray missions are planned. Notification should include e-mail messages to Subordinate Commands, marquee postings at gates and base housing, and dissemination of information fact sheets throughout the Air Station.

(5) Wing Surgeon, 2d MAW. Assign to the Preventive Medicine Department as many Wing PMTs as available to establish an emergency vector control team.

(6) Director of Operations. Assist in the emergency vector control program by coordinating the use of helicopters and air crews to be used for aerial spraying within the areas of responsibility until the emergency has ceased.

(7) Disaster Preparedness Officer, Naval Hospital

(a) Coordinate with the medical officer and the Preventive Medicine Department on all efforts supporting contingency disease vector and pest control relief.

(b) Liaison with other activity personnel who can provide and/or authorize funding and resources to support emergency vector and pest control measures.

5. Administration and Logistics. The Commanding General, 2d Marine Aircraft Wing, the Commanding Officers, Naval Aviation Depot, CSSD-21, and Company Commander, 12th Dental concur with the contents of this Order insofar as it pertains to members of their command.

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6. Command and Signal

- a. Signal. This Order is effective the date of signature.
- b. Command. This Order is applicable to the Marine Corps Reserve.

  
E. DARNER

Chief of Staff

DISTRIBUTION: A and B

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# **Mosquito Activity Synopsis**

Week \_\_, Date\_\_\_\_\_

## **Weekly CDC Trap Collections**

Species			Habitat	Bridge Vector	% 2000 Populati on Week _____	% 2001 Populati on Previous Week _____	% 2001 Population on Current Week	% Increase  Decrease
<i>Ae. albopictus</i>			AC	YES				
<i>Ae. vexans</i> *			FP	YES				
<i>Oc. canadensis</i>			FP	YES				
<i>Oc. fulvus pallens</i>			TP	?				
<i>Oc. infirmatus</i>			TP	YES				
<i>Oc. mitchellae</i>			TW	?				
<i>Oc. sollicitans</i>			SM	YES				
<i>Oc. sticticus</i>			FP	?				
<i>Oc. taeniorhynchus</i>			SM	YES				
<i>Oc. triseriatus</i> *			AC/TH	YES				
<i>Oc. Atlanticus</i> *†			FP	YES				
<i>An. crucians</i> †			PW	YES				
<i>An. punctipennis</i>			PW	YES				
<i>An. quadrimaculatus</i>			PW	YES				
<i>Cq. perturbans</i>			PW	YES				
<i>Cs. melanura</i>			PW	IM				
<i>Cx. complex</i>			FW	YES				
<i>Cx. erraticus</i>			FP	YES				
<i>Cx. pipiens</i>			TP	YES				
<i>Cx. restuans</i>			TP	YES				
<i>Cx. salinarius</i>			TW	YES				
<i>Ps. ciliata</i>			TW	?				
<i>Ps. columbiae</i>			TW	YES				
<i>Ps. ferox</i>			FP	YES				
<i>Ps. howardii</i>			FP	?				
<i>Ur. sapphrinia</i>			PW	?				

Weekly CDC Trap Total Collections..... .n=                      n=                      n=

### **Legend:**

† California Group Virus

\* Alphavirus Group, Eastern equine virus

AC=Artificial Container

FP=Flood Plain

PW=Permanent Water

SM=Salt Marsh

TH=Tree Hole

TP=Temporary Pool

TW=Temporary Water

ENCLOSURE (1)

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**EMERGENCY VECTOR CONTROL SUPPLEMENT**

1. The emergency vector control supplement is designed to assist in managing exceptionally large insect populations. Widespread flooding and disruption of sanitation services from abnormally destructive weather conditions (hurricanes, tornadoes, and floods) demand the requirement for extensive medical surveillance and chemical treatment (ULV, larvicide) to eliminate or suppress vector-borne disease outbreaks.

a. Hurricanes. Widespread flooding and structural damage to facilities and dwellings, which will result in increased populations of mosquitoes, flies, cockroaches, ants, ticks, and rodents.

b. Tornadoes. Localized damage to facilities and dwellings, which will result in increased populations of flies, cockroaches, and rodents.

2. Pest Description

a. Mosquitoes. Mosquitoes are very common throughout the world. The adult mosquito is a small and fragile insect with slender abdomen, one pair of narrow wings, three pairs of long, slender legs, and a long proboscis through which it feeds. Mosquitoes have four distinct stages in their life cycle: the egg, larva, pupa, and adult. The first three stages occur in water, whereas the adult becomes an active flying insect. Males feed exclusively on plant fluids, while females feed on human and/or animal blood, making them capable for transmitting animal and human disease.

b. Flies. Flies are found throughout the world. There are numerous fly families, which are capable of being mechanical carriers for disease transmission. The adult fly is small to medium in size; dark stout bodies with one pair of wings and three pair of legs. Flies have similar stages in their life cycle as mosquitoes although they do not take place in water. The adult fly is free flying and feeds through sponging mouthparts. The fly must siphon its food through sucking/sponging mouthparts. It regurgitates onto its meal, emptying a portion of its stomach contents and digestive fluids in an attempt to soften and liquefy its food. All life stages can be found in places where garbage collects or lack of sanitation exists.

c. Ticks. Ticks are common throughout the world. The family Ixodidae adult has a small dorsoventrally flattened round body. It feeds through the hypostome mouthparts. Its legs are located close to the mouth. Ticks have four distinct stages in their life cycle:

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egg, larva, nymph, and adult. The larvae have six legs; the nymph and adult have eight legs. The latter of these stages feed on animal and human blood, making them responsible for animal and human disease transmission.

d. Cockroaches. Cockroaches are of public health concern due to their capability for transmitting food-borne diseases through direct contamination of foods and food service areas. Their size ranges from small (1/4 inch) to large (two inches) and are dark in color. They are dorsoventrally flattened, oval shaped with long, multi-segmented antennae. Because they have an incomplete life cycle, the nymphs both resemble and are closely associated with the adults. However, nymphs are always wingless and lack cerci.

e. Rodents. Rodents (rats, mice) are found throughout the world and are capable of transmitting several diseases of importance to man. The most common types of rodents encountered are the Norway and Roof rats and the common House mouse. The average gestation period for rodents is between 19-21 days with 4 to 8 litters of 20-30 young per year. They travel roughly 10-150 feet from their harborage in search for food causing damage to food supplies via gnawing and contamination with urine/feces. The cost associated with this is estimated between 5 hundred million to 1 billion dollars annually.

### 3. Disease Risk and Control

#### a. Vector-borne diseases with associated vectors:

<u>Disease</u>	<u>Vector/Pest</u>	<u>Reservoir</u>	<u>Control</u>
Encephalitis, West Nile Virus	Mosquitoes	Birds	- ULV (ground/aerial)
	<u>Culiseta melanura</u>	Mosquitoes	- Larviciding
	<u>Aedes sollicitans</u>		- Restrict outdoor activity
	<u>Aedes taeniorhynchus</u>		- Personal protection
Bacillary Dysentery	Flies/Cockroaches	Man	- Harborage denial - Residual spray - Crack and crevice - Bait stations
Lyme Disease	Ticks	Ticks	- Environmental modification
	<u>Ixodes dammini</u>		- Residual spray
	<u>Amblyomma americanum</u>		- Personal protection

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Rocky Mountain Ticks	Ticks	- Environmental modification
Spotted Fever	<u>Amblyomma americanum</u>	- Residual spray
(RMSF)		- Personal protection

b. Food service areas and potential Evacuation Vector Control Shelter Centers may require supplemental vector control.

#### 4. Supporting Area Activities

- a. Craven County Public Health (252) 636-4936
- b. Craven County Mosquito Control (252) 733-6407
- c. NC Public Health/Natural Resources  
--Regional Office, Morehead City, NC (252) 726-8970  
--State Office, Raleigh, NC (919) 733-6407
- d. Navy Environmental Preventive (804) 444-7671  
Medicine Unit #2; 1887 Powhattan St., DSN 564-7671  
Norfolk, VA 23511-3394  
(After Action Report required)
- e. Disease Vector Ecology and Control Ctr (904) 772-2424  
Box 43; Jacksonville, FL 32212-0043 DSN 942-2424  
(After Action Report required)
- f. Navy Environmental Health Center (804) 444-7575  
2510 Walmer Ave., Norfolk, VA 23513 DSN 564-7575  
(After Action Report required)

#### 5. Personal Protective Equipment

a. Pest Control will maintain the personal protective equipment required for pest control personnel.

b. The equipment consists of the following:

- (1) Non-insulated, black rubber, knee-high boots.
- (2) Coveralls, safety, industrial.
- (3) Ear plugs and ear muffs.
- (4) Gloves, chemical and oil protective.
- (5) Goggles, industrial, non-vented.
- (6) Helmet, safety.

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(7) Respirator kit.

(8) Filters.

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